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REMARKS

Claims 1-13 are pending in this application. Claims 1, 3, 8 and 9 have been amended. New Claims 14-17 have been added. No new matter has been added.

Claims 1-13 were rejected under 35 USC §102(b) as being anticipated by Smith et al. (U.S. Patent 5,704,021). Regarding Claims 1, 3, 8 and 9, the Examiner stated Smith discloses a printing system for use in printing image objects of different image object types (the abstract), comprising: a printer (56); and a printer control device with a user interface having a first option for associating printer-independent print quality characteristics with a selected object type to be printed by the printer (col. 3, lines 47-60; col. 5, lines 52-62; col. 6, lines 4-22 and col. 10, line 66 to col. 11, line 6). Applicant respectfully disagrees.

Independent Claim 1, as amended, claims a printing system for use in printing image objects of any of a plurality of different object types, said system comprising: a printer, including a set of printer specific imaging actions, specific to the printer and to its supported media, for printing image objects; and a printer control device with a user interface having a first option for associating printer-independent print-quality characteristics with a selected object type to be printed by said printer; wherein a printer-independent print-quality characteristic comprises an instruction for indicating a feature of an image object to be preserved during rendering which is both printer-independent and media independent; and wherein each printer-independent print-quality characteristic has associated with it corresponding printer specific imaging actions from the set of printer specific imaging actions for printing the selected object type.

Independent Claim 8, as amended, claims a method for controlling the quality of printing by a printer of a composite document having different types of objects, comprising: in a user interface: providing a list of object types; providing a list of printer-independent print-quality characteristics, wherein a printer-independent print-quality characteristic comprises a guide for indicating a feature of an image object to be preserved during rendering which is both printer-independent and media independent; responsive to a user selecting an object type from the list of object types; and a user

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associating at least one printer-independent print-quality characteristic with the selected object type to be printed by said printer; associating the selected printer-independent print-quality characteristic with corresponding printer specific imaging actions from a set of printer specific imaging actions specific to the printer and to its supported media for printing the selected object type.

Smith describes an adaptive color rendering system based on object type. Smith's system allows for users to select, or provides automatic selection, of customized settings for color correction as well as halftoning. Smith's system is directed to sophisticated users who are capable of selecting color corrections for each type of object. "For example, in the printer driver dialog screens shown in the drawings, a user can select Scatter 93 halftone for photographic images, a Pattern 92 halftone for business graphics and a Cluster 91 halftone for text." (See col. 11, lines 3-6 of Smith.) All selections shown in Smith, which are available for a "sophisticated user" to select are printer dependent characteristics, such as halftoning and color control (see Figs. 5 and 6 of Smith). For example, a Scatter 93 halftone chosen under Smith for photographic images will cause those images to look better on inkjet printers but worse on many xerographic printers. The best halftone to use for a photograph is different for different types of printers and media. On some printers or some media, the Scatter halftone dots are so small that they are partially deleted, making a photograph look mottled. Smith's system requires intimate knowledge of a printer's characteristics for each media supported by each printer.

In contrast, Applicant's method allows users to select a printer-independent print-quality characteristic, which comprises a guide for indicating a feature of an image object to be preserved during rendering which is both printer-independent and media independent. In Applicant's system, the user interface allows a user to associate printer-independent print-quality characteristics with image objects. A printer-independent print-quality characteristic is an instruction associated with a particular image element or elements (such as an image object) on an electronic page. A printer-independent print-quality characteristic can be thought of as a guide indicating an important feature of the

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element(s) which should be preserved during rendering. Examples of printer-independent print-quality characteristics include "make sharp edges", "reduce mottle", "distinguish neighboring colors", "reduce moiré", "distinguish tone and edges", "maximum tone depth", "perceptual colors", "contour", "no abutting corners", "increase moiré", "uniform gloss", "distinctness" and "compress without loss of detail". Many other printer-independent print-quality characteristics may be defined.

A printer-independent print-quality characteristic is both printer-independent and media-independent. For example, the instruction "make sharp edges" does not say how to make sharp edges on any particular printer or printer/media combination. A printer-independent print-quality characteristic may be used in or associated with an electronic file (or element or object therein) that may be sent to any printer that supports the use of printer-independent print-quality characteristics and printed on any media that is supported by the printer. For example, if the printer-independent print-quality characteristics "sharp edges" is read by a printing system and is associated with a block of small colored text, it indicates that printer-dependent imaging actions (e.g., color transforms, halftones, compression methods, black generation methods, etc.) for that block of small text should be chosen to emphasize the sharpness of edges. For example, the color of small text might be slightly changed to be more solid, so that edges will not be broken up. Similarly, a halftone will be chosen that is small enough to accurately print sharp edges for this particular printer and type of paper. Imaging actions are not chosen by the printer-independent print-quality characteristic, because the imaging action choices are specific to a particular printing system, and within a printing system dependent on the media (e.g., paper or transparency) upon which the print will be made. Each printer must have its own specific imaging choices for each of its supported media, guided by the goal of "sharp edges". Smith makes no mention of such printer-independent choices.

No additional fee is believed to be required for this amendment; however, the undersigned Xerox Corporation attorney hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

Reconsideration of this application and allowance thereof are earnestly solicited.

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In the event the Examiner considers a personal contact advantageous to the disposition of this case, the Examiner is requested to call the undersigned Attorney for Applicant, Jeannette Walder.

Respectfully submitted,

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Xerox Corporation
El Segundo, California
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